

ABSTRACT OF THE DISCLOSURE

A controller for regulating a FET to operate as a pass device including input, output and gate nodes coupled to a current path input, a current path output and the gate of the FET, respectively, a controlled low current device, and an oscillating high gain regulation amplifier. The voltage source provides a regulation voltage level relative to the input node. The low current device is coupled to the gate node and has a control input. The amplifier has a first input coupled to the output node, a second input coupled to the voltage source, and an output coupled to the control input of the controlled low current device to regulate the FET. The amplifier oscillates while regulating a voltage between the input and output nodes to the regulation voltage level. The controlled low current device presents a high impedance to the gate node to prevent oscillations from disturbing regulation.